1900MNRAS..60..396.

Papers read before the Society from March 1899 to January 1900.

1899.

Mar. 10. Observations of *Eros* (1898 DQ.), made with the 30-inch reflector of the Thompson equatorial of the Royal Observatory, Greenwich. Communicated by the Astronomer Royal.

Note on Dr. Rambaut's remarks in the *Monthly Notices* for November 1898. David Gill.

Occultations observed at the Royal Observatory, Cape of Good Hope, during the lunar eclipse of 1898 December 27. Communicated by H.M. Astronomer.

Nebulæ observed at the Royal Observatory, Cape of Good Hope, during the year 1898. Communicated by H.M. Astronomer.

On the use of the electric light for the artificial star of a Zöllner photometer. W. de Sitter.

The Radiant Point of the April meteors (*Lyrids*). W. F. Denning.

Theory of the motion of the Moon; containing a new calculation of the expressions for the coordinates of the Moon in terms of the time. E. W. Brown.

General Catalogue of the Radiant Points of meteoric showers, and of fireballs and shooting stars observed at more than one station. W. F. Denning.

Observations of Hind's variable Nebula in *Taurus*. E. E. Barnard.

Determination of the diameter and compression of the planet *Mars* from observations with the Repsold heliometer of the Royal Observatory, Göttingen. (Second communication.) W. Schur.

Periodic variation in the colours of the equatorial belts of *Jupiter*. A. S. Williams.

Double Star observations, 1895–98. W. H. Maw.

Note on the diurnal variations of the nadir and level of the transit circle at the Royal Observatory, Greenwich. Communicated by the Astronomer Royal.

The Greenwich meridian observations of *Polaris* 1836–93, with reference to personality, the value of the constant of aberration, and the star's parallax. W. G. Thackeray.

1900MNRAS..60..396.

Apr. 14. Double Star observations, 1897–98. J. L. Scott.

Photographs of the Radiant of the *Leonid* meteors, and attempts to photograph the meteor stream. Isaac Roberts.

Further observations of comet Coddington (*c* 1898). John Tebbutt.

Results of micrometer measures of double stars made with the 28-inch refractor at the Royal Observatory, Greenwich, in the years 1896, 1897, and 1898. Communicated by the Astronomer Royal.

On the errors of star photographs due to optical distortion of the object glass with which the photograph is taken. H. H. Turner.

Observations of planet (433) *Eros*, and of comet Tuttle, made at the Radcliffe Observatory, Oxford. Communicated by the Radcliffe Observer.

Observations of planet *Eros* from photographs taken with the 30-inch reflector of the Thompson equatorial at the Royal Observatory, Greenwich. Communicated by the Astronomer Royal.

May 12. Observations of Tuttle's comet (*b* 1899) made with the 30-inch reflector of the Thompson equatorial at the Royal Observatory, Greenwich. Communicated by the Astronomer Royal.

Observations of Swift's comet, 1899, made at Grahamstown, South Africa. L. A. Eddie.

Observations of *Mars* made at Mr. Crossley's Observatory, Bermerside, Halifax, during the opposition of 1898–99. Joseph Gledhill.

Longitude from Moon culminations. D. A. Pio.

Remarks on the paper by Professor W. Schur, together with determination of the diameter and polar compression of the planet *Mars* from observations with the Repsold heliometer of the Remeis Observatory, Bamberg, and with the Breslau heliometer at the Observatory, Strassburg, in 1879. Ernst Hartwig.

On the errors of star photographs due to optical distortion of the object glass with which the photograph is taken. (Second paper.) H. H. Turner.

Note on the spectra of γ *Cassiopeiæ* and *o Ceti*. Rev. W. Sidgreaves.

Observations of the satellite of *Neptune* from photographs taken at the Royal Observatory, Greenwich. Communicated by the Astronomer Royal.

Note on the constitution of *Saturn's* crape ring. E. M. Antoniadi.

June 9. On the curvature of star trails on a photographic plate as a means of investigating optical distortion. H. H. Turner.

1900MNRAS..60..396.

On the formulæ of reduction to the meridian of the observed zenith distances of stars. A. E. Young.

A further investigation concerning the position error affecting eye-estimates of star magnitudes. A. W. Roberts.

Equatorial comparisons of *Jupiter*, *Uranus*, and *Neptune* with certain stars in Newcomb's Standard Catalogue. John Tebbutt.

Note on the nebula N.G.C. 6535. W. H. Robinson.

Note on the construction and use of Réseaux. A. R. Hinks.

Ephemerides of two situations in the *Leonid* stream. G. J. Stoney and A. M. W. Downing.

Observations of comet *a* 1899 (Swift) made at the Royal Observatory, Greenwich. Communicated by the Astronomer Royal.

Ephemeris for physical observations of the Moon for the second half of 1899. A. C. D. Crommelin.

Small nebulæ discovered with the Crossley reflector of the Lick Observatory. J. E. Keeler.

Nov. 10. Note on the motion of *Jupiter's* red spot. C. Flammarion.

Comparisons of the geocentric places of *Mercury*, *Venus*, *Mars*, *Jupiter* and *Saturn*, calculated from the tables of the American Ephemeris Office with the places calculated from Le Verrier's tables for the year 1901. A. M. W. Downing.

The magnitude of η *Argûs*, 1899. R. T. A. Innes.

Observations of *Mars* during the apparition of 1898–99. Rev. T. E. R. Phillips.

On the optical distortion of a doublet lens. Capt. E. H. Hills.

List No. 12 of nebulæ discovered at Lowe Observatory, Echo Mountain, California, for 1900-0. Lewis Swift.

Further notes on *Saturn's* crape ring. E. M. Antoniadi.

Note on the geographical position of the University Observatory, Oxford. A. J. Walker.

Observations of *Jupiter* in 1899. W. F. Denning.

Early history of the great red spot on *Jupiter*. W. F. Denning.

Observations of *Jupiter* and his satellites made at Mr. Crossley's Observatory, Bermerside, Halifax, during the opposition of 1898–99. Joseph Gledhill.

Tempel's comet, 1873 II. (*c* 1899), observed at Grahamstown, Cape of Good Hope. L. A. Eddie.

Ephemeris for physical observations of the Moon for the first half of 1900. A. C. D. Crommelin.

Observations of nebulæ made at the Chamberlin Observatory, University Park, Colorado. H. A. Howe.

1900MNRAS..60..396.

Nebulæ discovered at the Chamberlin Observatory, University Park, Colorado. H. A. Howe.

The Bruce micrometer of the Chamberlin Observatory. H. A. Howe.

On the probable motion of the annular nebula in *Lyra* (M. 57), and the peculiarities in the focus for the planetary nebulæ and their nuclei. E. E. Barnard.

The exterior nebulosities of the *Pleiades*, with a drawing from the different photographs; and on the appearance of the involved nebulosities of the cluster with the 40-inch refractor. E. E. Barnard.

On the diameters of *Ceres* and *Vesta*. E. E. Barnard.

The theory of the Figure of the Earth carried to the second order of small quantities. G. H. Darwin.

On the distribution of stars photographed at the University Observatory, Oxford, for the Astrographic Catalogue for zones +25° to +29°. F. A. Bellamy.

On the variation of personal equation with stellar magnitude in observations made at Cambridge, Berlin, and Greenwich; as deduced from measures of photographic plates taken at Oxford. H. H. Turner.

Comparison of the diameters of the images of stars on the Greenwich astrographic plates with the magnitudes given in the *Bonn Durchmusterung*. F. W. Dyson and H. P. Hollis.

Preliminary note on the spectrum of α *Aurigæ*. H. F. Newall.

Dec. 8. Ephemeris for physical observations of *Jupiter*, 1899–1900. A. C. D. Crommelin.

Note on the values of the coefficients of the terms of the third order in the new Lunar theory. E. W. Brown.

Observations of the *Leonids* of 1899 made at the University Observatory, Oxford. H. H. Turner.

On the proper motions of Berlin B, Nos. 5072 and 5073. F. A. Bellamy.

New nebulæ discovered photographically with the Crossley reflector of the Lick Observatory. J. E. Keeler.

Observations of the *Leonids* of 1899 made at Durham Observatory. Communicated by R. A. Sampson.

On the relation between magnetic disturbance and the period of solar spot frequency. William Ellis.

The extra-equatorial currents of *Jupiter* in 1899. Rev. T. E. R. Phillips.

Mean areas and heliographic latitudes of Sun-spots in the year 1898, deduced from photographs taken at the Royal Observatory, Greenwich, at Dehra Dûn (India), and in Mauritius. Communicated by the Astronomer Royal.

1900MNRAS..60..396.

Observations of the *Leonids* of 1899 November 14 and 15, made at the Radcliffe Observatory, Oxford. Communicated by the Radcliffe Observer.

Results of observations of the *Leonid* meteors of 1899, as seen from the Royal Observatory, Edinburgh. George Clark.

Observations of the *Leonid* meteors of 1899 made at the Royal Observatory, Greenwich. Communicated by the Astronomer Royal.

1900.

Jan. 12. Note on the variable star η *Argûs.* Col. E. E. Markwick.

Observations of meteors, 1899 November, made at the Royal Alfred Observatory, Mauritius. Communicated by T. F. Claxton.

Note on the physical constitution of the lunar surface. George Forbes.

The determination of selenographic positions and the measurement of lunar photographs. S. A. Saunder.

Observations of the lunar eclipse 1899 December 16 at the Liverpool Observatory. W. E. Plummer.

Some suggestions for the explicit use of direction cosines or rectangular coordinates in astronomical computations. H. H. Turner.

On the unpublished observations made with the transit instrument and quadrants at the Radcliffe Observatory, Oxford, between the years 1774 and 1838. A. A. Rambaut.

Observations of occultations of stars by the Moon and of phenomena of *Jupiter's* satellites made at the Royal Observatory, Greenwich, in the year 1899. Communicated by the Astronomer Royal.

Micrometric measures of β 883 with the 28-inch refractor at the Royal Observatory, Greenwich, in 1899. Communicated by the Astronomer Royal.

Ephemeris for physical observations of *Mars*, 1900–1901. A. C. D. Crommelin.

LIST OF PUBLIC INSTITUTIONS AND OF PERSONS WHO HAVE CONTRIBUTED TO THE LIBRARY, &C., SINCE THE LAST ANNIVERSARY.

Her Majesty's Government in Australia.
Her Majesty's Government in India.
The Lords Commissioners of the Admiralty.
The Italian Government.
The Norwegian Government.
British Association for the Advancement of Science.
British Astronomical Association.
British Horological Institute.
Camera Club.
Geological Society of London.
London Mathematical Society.
Meteorological Office.
Physical Society of London.
Royal Geographical Society.
Royal Institution of Great Britain.
Royal Meteorological Society.
Royal Observatory, Greenwich.
Royal Photographic Society of Great Britain.
Royal Society of London.
Royal United Service Institution.
Society of Arts.
University College, London.
Belfast Natural History and Philosophical Society.
Cambridge Philosophical Society.
Cambridge University.
Cardiff, Astronomical Society of Wales.
Dublin, Royal Irish Academy.
Dublin, Royal Society.
Dunsink Observatory.
Kew Observatory.
Leeds Astronomical Society.
Leeds Philosophical and Literary Society.
Liverpool Literary and Philosophical Society.
Liverpool Observatory.
Manchester Literary and Philosophical Society.
Oxford, Radcliffe Observatory.
Oxford, University Observatory.
Rugby School Natural History Society.
Stonyhurst College Observatory.
Truro, Royal Institution of Cornwall.